

- 12
old
- (45.) The solution according to claim 16, wherein the bleach bath has a total quantity of silver of at least 7.5 gm².
- (46.) The solution according to claim 16, wherein the bleach bath uses materials in which at least 6.3 grains of silver must be bleached during the processing. --

REMARKS

Applicants respectfully request reconsideration in view of the amendment and following remarks. The applicants have rewritten claim 20 as newly added claim 37 and have added the following phrase at the end of the claim "wherein the solution is used in the processing of color reversal silver halide materials". Support for the phrase added to the end of claim 37 can be found in the specification at page 1, line 31 to page 2, line 15. Support for claims 38-46 can be found in the previous claims 17 through 19, 20 and 31 through 36. No additional fee is required for the claims.

The Examiner has required the applicants to elect between Groups I through III. The applicants affirm their election of Group I, claims 16 through 19, 31 through 36 and claim 20 (now claims 37-46) with traverse. The applicants believe there is no undue burden on the Examiner to search the claims of Groups I through III. For the above reasons, the applicants respectfully request that the election requirement be withdrawn.

The applicants agree with the Examiner that at least claims 21 and 22 in the above-identified application should be rejoined when the examined claims are found allowable. The applicants also believe that the method of using claims 23-30 should be rejoined when the examined claims are found allowable (In re Ochiai, 37 USPQ 2d 1127 (CAFC 1995)).

Claims 16 through 20 and 31 through 36 were rejected under 35 U.S.C. § 102(b) as being anticipated by Rogers *et al.*, U.S. Patent No. 5,389,501 (hereinafter referred to as "Rogers"), Kuse *et al.*, U.S. Patent No. 5,453,348 (hereinafter referred to as "Kuse"), Ueda *et al.*, U.S. Patent No. 5,580,705 (hereinafter referred to as "Ueda"), Yamashita *et al.*, U.S. Patent No. 5,635,341 (hereinafter referred to as "Yamashita"), Inaba *et al.*, U.S. Patent No. 5,885,757 (hereinafter referred to as "Inaba") or McGuckin *et al.*, U.S. Patent No. 6,022,674 (hereinafter referred to as "McGuckin"). Claims 16 through 20 and 31 through 36 were rejected under 35 U.S.C. § 103 as being unpatentable over Kuse, Ueda, Yamashita, Inaba, Nakamura *et al.*, U.S. Patent No. 5,658,715 (hereinafter referred to as "Nakamura"), Kuramitsu *et al.*, U.S. Patent No. 6,048,673 (hereinafter referred to as "Kuramitsu") and/or Irie, U.S. Patent No. 6,346,368 (hereinafter referred to as "Irie"). The applicants respectfully traverse these rejections.

Section 102 Rejection

Claims 16 through 20 and 31 through 36 were rejected under 35 U.S.C. § 102(b) as being anticipated by Rogers, Kuse, Ueda, Yamashita, Inaba or McGuckin.

Rogers at cols. 3 and 4 and the examples discloses using the ferric salt of propylenediaminetetraacetic acid (Fe-PDTA) in varying amounts for the processing of color negative photographic materials, whereas applicants' claim a solution that contains Fe-PDTA or the iron complex of β -alaninediacetic acid (Fe-ADA) that is used in the processing of color reversal silver halide materials.

Kuse's examples 1 to 8 are color negative films. The examples use the ferric salt of ethylenediaminetetraacetate (Fe-EDTA) in varying amounts for the processing of color negative photographic materials, whereas applicants' claim a solution that contains

Fe-PDTA or Fe-ADA that is used in the processing of color reversal silver halide materials.

It is acknowledged that Kuse discloses the term "color reversal" at two locations in its application. In the background of the invention at col. 1, lines 41-60 Kuse states,

"In response to the requirements of less problems of environmental pollution, rapid and simple processing, reuse of waste liquid, and others, processing solutions containing metal complex salts of organic acids, such as aminopolycarboxylic acid, as oxidizing agent have become used. However, such processing solutions are faulty in that the bleaching rate (oxidation rate) of image silver (metallic silver) formed in the developing process is low due to weak oxidation power. For example, iron (III) complex salt of ethylenediaminetetraacetic acid, considered relatively strong in bleaching power among metal complex salts of aminopolycarboxylic acid, is now in practical use in bleaching solutions and bleach-fixers, but it is faulty in that bleaching power is insufficient and much time is taken in the bleaching process when used for high-sensitivity silver halide color photographic light-sensitive materials composed mainly of a silver bromide or silver iodobromide emulsion, specifically silver-rich color paper for picture taking and color negative and color reversal films for picture taking which contain silver iodide." (emphasis added)

Kuse further states at col. ⁸7, lines 30-32,

"Color negative films, color paper, color reversal films, color reversal paper and other light-sensitive materials can be used for the present invention."

Ueda's example 1 is to color paper, example 2 is to color photographic material, example 4 is to color paper, examples 5-7 are to color photographic material, example 8 is to color negative film and example 9 is to color paper. The examples use the ferric salt of Fe-PDTA in varying amounts for the processing of color photographic materials, whereas applicants' claim a solution that contains Fe-PDTA or Fe-ADA that is used in the processing of color reversal silver halide materials. Ueda's examples are not directed to color reversal silver halide materials.

It is acknowledged that Ueda discloses the term "color reversal" at two locations in its application. Ueda states at col. 14, lines 54-64,

"The light-sensitive material suitable for the method of the invention includes those used as color negative films, color paper and color reversal films. And, in the embodiment of the invention, desirable color negative films are those comprising silver iodobromide grains having an average silver iodide content of 3 mol %; a more desirable average silver iodide content is 4 to 15 mol %; an even more desirable silver iodide content is 5 to 12 mol %; and the most desirable average silver iodide content is 8 to 11 mol %.

The light-sensitive material for color negative films used in the invention..." (emphasis added).

Ueda further discloses at col. 25, lines 9-13,

"The invention can be applied to color light-sensitive materials such as color paper, color negative films, color reversal films, color reversal paper and direct positive color paper, which are for general use; films for movie use; and films for TV use." (emphasis added).

It is acknowledged that this group contains color reversal films, but the preferred teaching and the examples are drawn to color negative films.

Yamashita examples referred to by the Examiner, relate to color paper and not to color reversal silver halide materials. The examples use the ferric salt of Fe-PDTA in varying amounts for the processing of color negative photographic materials, whereas applicants' claim a solution that contains Fe-PDTA or Fe-ADA that is used in the processing of color reversal silver halide materials.

It is acknowledged that Yamashita discloses the term "color reversal" at one location in its application. Yamashita at col. 11, lines 24-31 state,

"Such light-sensitive materials include color negative films, color paper and color reversal films. As silver halide grains used in color negative

films, silver iodobromide grains having an average silver iodide content not less than 3 mol % are preferred. A particularly preferred silver iodide content is not less than 10 mol %. As silver halide grains for color paper, silver chloride rich grains containing at least 80 mol % silver chloride are used.” (emphasis added)

Inaba shows in the examples multilayer color negative films. Examples 102, 202 and 502 are the comparative examples that had poor results. Examples 102, 202 and 502 used the Fe-PDTA in varying amounts for the processing of color negative photographic materials, whereas applicants’ claim a solution that contains Fe-PDTA or Fe-ADA that is used in the processing of color reversal silver halide materials.

It is noted that Inaba discloses the term “color reversal” at one location in its application. Inaba at col. 31, lines 47-61 states,

“The photographic sensitive materials which can be processed with the processing composition of the present invention include ordinary black-and-white silver halide photographic sensitive materials (such as black-and-white sensitive materials for photography, black-and-white sensitive materials for X-rays and black-and-white sensitive materials for printing), ordinary multi-layer silver halide color photographic sensitive materials (such as color negative films, color reversal films, color positive films, color negative films for movies, color printing papers, color reversal photographic papers and direct positive color printing papers), infrared sensitive materials for laser scanner, diffusion transfer sensitive materials (such as silver diffusion transfer sensitive materials and color diffusion transfer sensitive materials).” (emphasis added).

McGuckin Examples use the ferric salt of Fe-PDTA in varying amounts for the processing of color negative photographic materials, whereas applicants’ claim a solution that contains Fe-PDTA or Fe-ADA that is used in the processing of color reversal silver halide materials.

It is acknowledged that McGuckin discloses the term "color reversal" at two locations in its application. McGuckin discloses at col. 8, lines 49-54,

"The present invention can therefore be used to process silver halide color negative (PROCESS C-41) or color reversal (PROCESS E-6) films, with or without a magnetic backing layer or stripe. Preferably, color negative films having a magnetic backing layer are processed using this invention."

McGuckin further discloses at col. 10, lines 54-56,

"Processing steps and solutions specific to processing color negative films (Process C41) and color reversal films (Process E-6) are known in the art."

The preamble should be given patentable weight. The applicants claim a bleach/fixing solution used in the processing of color reversal silver halide materials (see claim 37). In some decided cases the preamble of a claim has been denied the effect of a limitation, where the preamble is merely a designation of intended use, In re Van Lint and Miller, 148 USPQ 285, 289 (CCPA 1966). In the other cases, however, the preamble to the claim has been given a limiting effect where the introductory phrase was found essential to point out the invention defined by the claim. In those cases, the preamble gave life, meaning and vitality to the claims, Kropia v. Robie, 187 F2d 150, 88 USPQ 478 (CCPA 1951).

Whether or not a preamble of intended use constitutes a limitation to the claims is a matter of claim construction which must be determined on the facts of each case in view of the claimed invention as a whole, In re Stencel, 828 F2d 751, 754, 4 USPQ2d 1071, 1073 (Fed. Cir. 1987). A preamble cannot be disregarded simply because it is

directed to an intended field of use, In re Duva, 387 F2d 402, 406, 407, 156 USPQ 90 (CCPA 1967).

A preamble which must necessarily be relied upon to give life and meaning to the remainder of the claim limitations is, itself, a proper claim limitation, Diversitech Corp., 850 F2d 675, 677, 678, 7 USPQ 2d 1315 (Fed. Cir. 1988), and Perkin-Elmer Corp. v. Computervision Corp., 732 F2d 888, 896, 221 USPQ 669, 675 (Fed. Cir. 1984).

The preamble must be given weight, when the preamble provides antecedent basis for subsequent language in the body of the claim, In re Wertheim, 541 F2d. 257; 191 USPQ 90 (CCPA 1976), and Stranco Inc. v Atlantes Chemical Systems, Inc., 15 USPQ 2d 1704, 1713 (S.D. Tex. 1990).

In the instant situation, the body of claim 37 requires the solution is used in the processing of color reversal silver halide materials. It is clear that the claim drafter intended to use both the preamble and the body of claim 37 to define the subject matter of the invention.

The CAFC held in Bell Communications Research v. Vitalink Communications Corp., 34 USPQ 2d 1816, 1820, 55 F. 3d 615 (Fed. Cir. 1995),

"... as well-settled in our patent law precedent, that a claim preamble has the import that the claim as a whole suggests for it. In other words, when the claim drafter chooses to use both the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects. In re Paulsen, 30 F. 3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994)" (emphasis added)

For the above reasons, the prior art does not anticipate the applicants' claimed

invention and this rejection should be withdrawn.

Section 103 Rejection

Claims 16 through 20 and 31 through 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuse, Ueda, Yamashita, Inaba, Nakamura, Kuramitsu and/or Irie. As discussed above, Kuse, Ueda, Yamashita and Inaba have reduced to practice only bleaching solutions that were used in the processing of color negative materials (see the examples).

In most cases, especially in processing color negative (CN) films, the processed materials showed high amounts of residual silver (res Ag) with the amount of Fe-PDTA used, that are tolerable for negative films because of their high mask density, but prohibitive for color reversal films as disclosed on page 2, line 25 to page 3, line 3 of applicants' specification.

Furthermore the amount of silver that has to be bleached is much higher in color reversal materials than in color negative materials (see applicants' description, page 1, line 26 to page 2, line 15).

The applicants have informed the undersigned that knowing the teaching of Kuse (*e.g.* Ex-1; CN film; 0.22 mol Fe-EDTA/l; 0.08 - 0.13 g res. Ag/m²); Ueda (*e.g.* Ex 2-2; CN film; 0.35 mol Fe-PDTA/l; 0.05 g res. Ag/m²); Yamashita (*e.g.* Ex 5 (3-1 to 3-5); CN film; 0.35 mol Fe-PDTA/l; 0.06 - 0.07 g res. Ag/m²) and Inaba. (*e.g.* Ex 1 (102); CN film; 0.15 mol Fe-PDTA/l; 0.44 g res. Ag/m²), a person of ordinary skill in the art would have used much higher concentrations of Fe-PDTA for the processing of color reversal materials and would not have used concentrations as low as taught by applicants' invention.

It is the surprising result of applicants' invention, that when using Fe-PDTA or Fe-ADA as bleaching agents for color reversal materials, even lower amounts can be taken compared to color negative materials and a lower silver residue is obtained, although the amount of silver is much higher for reversal materials.

Nakamura, Kuramitsu and Ire only demonstrate with their Examples a bleaching solution for color reversal materials containing 0.33 mol/l of the iron complex of ethylene diametetraacetic acid, (Fe-EDTA) which was the usual bleaching composition at the time applicants' invention was made (see page 1, lines 14 to 17 of the applicants' specification).

None of the cited documents teach or suggest, to use Fe-ADA or Fe-PDTA in an amount as low as claimed by applicants' invention in the processing of color reversal silver halide materials. To the contrary, a person of ordinary skill in the art would have been lead away from applicants' claimed invention and would have used much higher amounts of a bleaching agent.

The applicants believe that the showings of applicants' invention are commensurate to the scope of applicants' claims. The tests asked by the Examiner are listed in Table I for Fe-PDTA and Fe-ADA. The result when using 0.045 mol/l Fe-EDTA is missing, but it's evident from the results for 0.34 and 0.20 mol/l Fe-EDTA, that the residual silver will be prohibitive using only 0.045 mol/l Fe-EDTA. For the above reasons, this rejection should be withdrawn.

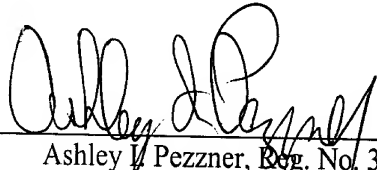
No additional fees are due. If there are any additional fees due in connection with the filing of this response, including any fees required for an additional extension of time under 37 CFR 1.136, such an extension is requested and the Commissioner is authorized

to charge or credit any overpayment to Deposit Account No. 03-2775.

For the reasons set forth above, Applicants believe that the claims are patentable over the references cited and applied by the Examiner and a prompt and favorable action is solicited. The applicants believe that these claims are in condition for allowance, however, if the Examiner disagrees, the applicants respectfully request that the Examiner telephone the undersigned at (302) 888-6270.

Respectfully submitted,

Connolly Bove Lodge & Hutz LLP

By 
Ashley I. Pezzner, Reg. No. 35,646
P.O. Box 2207
Wilmington, DE 19899
(302) 658-9141

227068_1.DOC

APPENDIX 1

21. A preparation for producing, regenerating or rejuvenating the bleach or bleach/fixing solution according to claim [16] 37, wherein the preparation contains one or more components and contains substantially all the necessary chemicals.